DOCUMENT RESUME

ED 082 353 EA 005 469

AUTHOR	Pearson, Douglas L.
TITLE	Planning for Education: People and Processes. School Planning Guide Series -- 1R.
INSTITUTION	North Carolina State Dept. of Public Instruction, Raleigh. Div. of School Planning.
PUB DATE	Mar 73
NOTE	54p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	Consultants; *Cooperative Planning; *Critical Path Method; Data Collection; Decision Making; Educational Objectives; *Educational Planning; Educational Strategies; *Information Utilization; Staff Role
IDENTIFIERS	PERT; Program Evaluation and Review Technique

ABSTRACT

In the process of planning for the needs of all students, local school officials could use a linear planning guide. Such a procedure calls for moving through several phases: preparation for planning, analysis of the situation, development of alternatives, selection of a plan, implementation of the plan, and evaluation of the plan and of the process. Program Evaluation and Review Technique (PERT) diagrams assist in the utilization of a totally cooperative process, comprising both in-house involvement of staff and out-of-house objectivity and resources. The process appears to be applicable to any planning need regardless of its dimensions. It can apply to the development of long-range, systemwide plans affecting the community's total educational program, as well as to the renovation of existing facilities, or to short-range planning for the utilization of a single school or site. (Some small print may photograph poorly.) (Author/WM)

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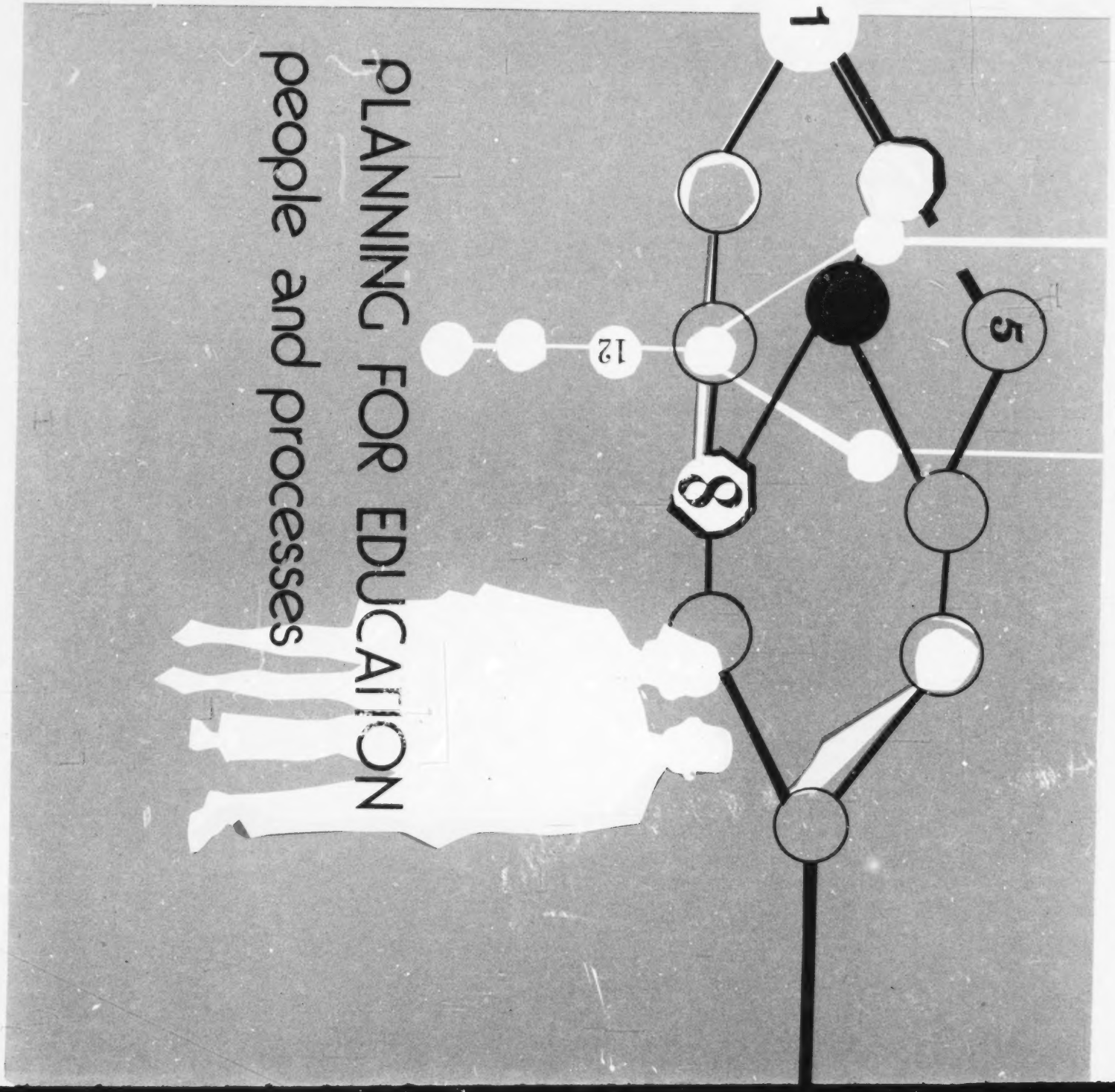
NORTH CAROLINA DEPARTMENT OF PUBLIC INSTRUCTION
DIVISION OF SCHOOL PLANNING, RALEIGH, N.C.

PLANNING FOR EDUCATION

people and processes



PLANNING FOR EDUCATION

people and processes

A. CRAIG PHILLIPS, State Superintendent
North Carolina Department of Public Instruction

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Division of School Planning

FOREWORD

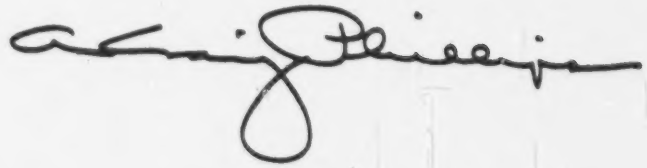
In the State of North Carolina, the statutory responsibility for operating the local public schools is delegated to county and city boards of education. Since a board of education is a policy-making body, the legal responsibility and authority for the administration of the local public school system is vested in the professional executive officer or superintendent employed by the local board of education.

Charged with this responsibility, the successful superintendent keeps abreast of recent developments and trends in public education, utilizes every possible source of professional information, and plans continuously for the improvement of the educational program. To insure the highest quality of educational decision-making and to guarantee a condition of preparedness, the alert superintendent maintains a well-defined and continuous planning process.

Effective and intelligent planning does not occur accidentally but through a carefully designed process that is sensitive to local conditions. This publication presents six phases that are inherent in the planning process. These phases are: (1) Preparation for planning, (2) Analysis of situation, (3) Development of alternatives, (4) Selection of a plan, (5) Implementation of the plan, and (6) Evaluation of the plan and the process. This process provides a framework for systematic, purposeful planning and permits the flexibility necessary for adaptation to any planning need or local condition.

We commend this publication to your attention. It, along with the Handbook for Planning in the Local School System, issued in October, 1972 by the Planning Division of the State Agency, and the 1972 State Board of Education Policy Statement which emphasizes planning as the basis for unit-wide school accreditation, should serve as the bases for an effective and efficient planning process to the end that your program of education is strengthened and improved. The Staff of the Department of Public Instruction is available for consultation and assistance in any or all aspects of the planning process.

March 1973



A. Craig Phillips, State Superintendent
Department of Public Instruction

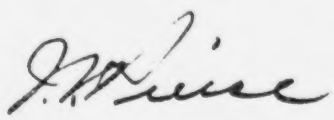
PREFACE

This publication is a descendant of *Educational Planning* which was published in 1964. Planning for education is not something new; it has been going on to a greater or lesser degree as long as there have been organized systems of education. When a school board and its staff make decisions regarding future programs for curricula, for staff, for organization, or for facilities, they do so on the basis of some degree of planning. The purpose of this publication is to clearly define, to better organize, and to encourage the process of planning for education to the end that more effective results accrue.

Planning for the future obviously requires continuous appraisal of existing programs, resources, and facilities. The planning process is more accurately described as a circular process than as a linear process. In this publication for purposes of simplicity, the planning process has been dealt with in a linear manner. The reader is encouraged to envision the whole process as ongoing, circular, or spiral, and with perpetual revision of information which is used for decision making.

Many people have made contributions in the revision of this publication. At three workshops, held in the fall of 1972, a preliminary draft of this publication along with an evaluation form was distributed to school superintendents throughout North Carolina. In addition to the distribution of the preliminary draft at the workshops, copies were mailed to all local education agencies and to several colleges and universities. The Division requested that all readers submit suggestions for deletions, additions, or changes which would improve the preliminary draft. This publication represents the input of all the responses received from these distributions.

This publication was prepared under the direction of Lacy M. Presnell, Jr., Educational Consultant, Division of School Planning and was written by Dr. Douglas L. Pearson, Educational Consultant, Division of School Planning. Acknowledgment is also made of the contribution of Marvin R. A. Johnson, Design Consultant, and Dr. T. Darrell Spencer, Educational Consultant of the Division of School Planning, who served on the *Planning for Education* working committee. The assistance of Patricia Mann, Draftsman-Artist, and Cheryl Wallace, Secretary, was invaluable in the illustration and production of the publication. Appreciation is also extended to the many North Carolina superintendents and professors who read, evaluated, and offered constructive suggestions for the improvement of the publication's preliminary draft.



J. L. Pierce, Director
Division of School Planning

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INTRODUCTION

This publication was prepared by the Division of School Planning to provide a planning guide that will be useful to local school officials in the process of planning for the needs of all students. The Division's original *Planning Guide* printed in 1958, was an eight page publication which admittedly was not intended to be a complete treatise but was intentionally kept brief and simple, although it dealt with a complex subject. The second publication, *School Planning Guide — Series 1* published in July of 1964, was a narrative document which described certain areas of the planning process in depth. Users have reported that the 1964 publication has been useful and helpful. Since no additional copies are available from the Division for distribution, it was suggested by several superintendents that the 1964 publication be reprinted, revised, or rewritten. In response to this request, this revision was prepared.

An attempt has been made in this publication to organize the information differently and to further refine the explanation of the planning process. Much of the detail present in the former publication, in addition to a wealth of more current information, is included in this revision. The major changes are reflected in the organization, the mode of presentation, and the refinement of the total planning process. The improved revision is intended for use by a more sophisticated clientele than the planners of the 1950's and 1960's, partly due to the utilization of portions or all of the planning processes suggested in earlier publications.

This publication is intended to build upon the experience and knowledge gained in recent years and to challenge local planners to continually work for improvements.

THE PLANNING PROCESS

In attempting to define the steps that appear to be inherent in the process of educational planning, the Division of School Planning has identified a linear procedure containing the following phases:

Phase I—Preparation for planning

Phase II—Analysis of situation

Phase III—Development of alternatives

Phase IV—Selection of a plan

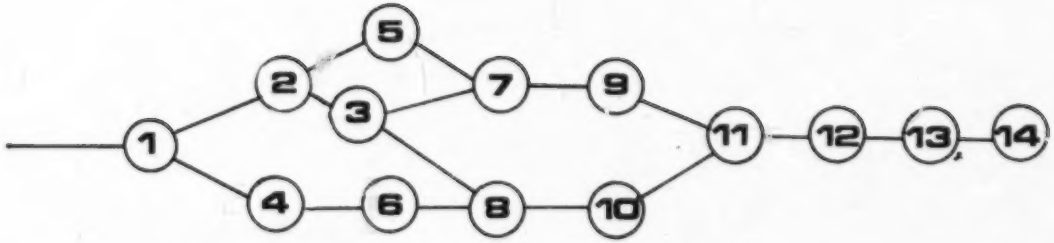
Phase V—Implementation of the plan

Phase VI—Evaluation of the plan and the process

This process seems to be applicable to any planning need regardless of its dimensions. It will apply to the development of long-range, system-wide plans affecting the community's total educational program including the instructional program, organization and administration, finances, personnel, facilities, community/school interactions, and special services. The process is also applicable to renovation or rehabilitation of existing facilities or to short-range planning for the utilization of single school or site.

ORGANIZATION OF THE GUIDE

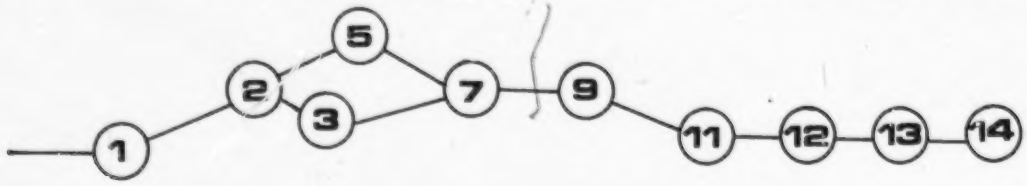
In order to provide a well defined and functional structure for the publication, the following PERT (Program Evaluation and Review Technique) diagram of the planning process is located on alternate pages. The diagram is located in this manner so that the reader can view and relate the printed information to the diagram at any time while reading the publication. The step or steps under consideration on a particular page will be highlighted on the diagram so that progress through the planning process is readily apparent.



1. Staff recognizes need for and makes decision to plan.
2. Staff organizes for in-house planning.
3. Staff updates philosophy, goals, and objectives.
4. Board contracts for out-of-house consultation.
5. Staff completes situation analysis.
6. Consultants complete situation analysis.
7. Staff develops alternative plans.
8. Consultants develop alternative plans.
9. Staff makes recommendations.
10. Consultants make recommendations.
11. Administration recommends to Board.
12. Board adopts a plan.
13. The plan is implemented.
14. The plan and the planning process are evaluated.

PERT is a method for sequentially ordering tasks that must be accomplished to move a project in an orderly manner and to curtail omissions and duplications. In short, it is a method for organizing and planning to produce maximum efficiency. The numbers that appear in each circle are necessary for identifying the various tasks. The circles represent the completion of tasks. The lines represent activities that began at the preceding circle and end at the following circle. For instance, line 2 - 5 indicates that after staff organization is accomplished (Task 2), situation analysis is begun by the staff and is accomplished at Task 5.

In a technically correct PERT chart, the relationship of the various tasks are apparent as well as the sequence. For instance, Task 7 (developing alternative plans) should not be initiated until Task 5 (situation analysis) and Task 3 (updating philosophy, goals, and objectives) have been completed. Since the diagram is intended to be flexible, there will be instances when the local board will prefer to utilize the local-staff-directed route without using out-of-house consultants. The process would then become a linear one as follows:



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There will be other instances, however, when the local administration will choose to utilize only the objective out-of-house route as follows:

1. Staff recognizes need for and makes decision to plan.
4. Board contracts for out-of-house consultation.
6. Consultants complete situation analysis.
8. Consultants develop alternative plans.
10. Consultants make recommendations.
11. Administration recommends to Board.
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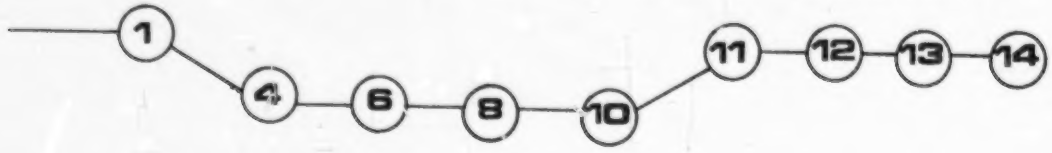
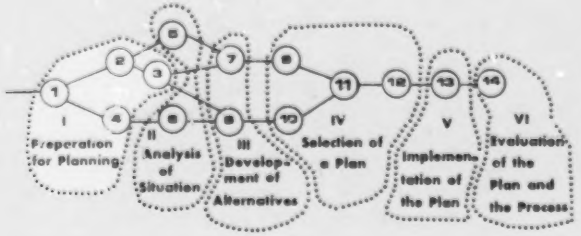


However, to realize the advantages of both routes, in-house involvement of staff and out-of-house objectivity and resources, the Division recommends that the total cooperative process be utilized whenever feasible.

The major content of this guide is in outline form and will be found on the left side of each page. The column on the right side of each page contains explanatory statements designed either (1) to explain further the outline content, (2) to provide additional information that is not suitable to outline form, or (3) to refer the reader to other publications of the Division of School Planning where more detailed information on the subject may be located.



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PHASE I — PREPARATION FOR PLANNING

Task (1) Staff recognizes need for and makes decision to plan.

Local school officials recognize a need for and decide to plan as a result of many factors:

Realization that long-range plans need revision

Changes in the school population

Changes in the financial structure by type or degree, e.g.

- Recent judicial precedents
- Attitude of local citizenry
- Changes in attitude and/or composition of agency on which education is fiscally dependent
- Revenue sharing
- Optional sales tax
- Changes in bonding capacity

While planning is a continuous, never-ending, and dynamic process, there are times when the need for increased planning activity becomes mandatory. These instances often occur when a variety of related but non-coordinated forces produce a concerted influence on the status quo of the system. Other situations such as rapid, unanticipated changes in the school population, substantial changes in the financial structure of the system, or even unexpected crises (arson or natural disaster) may create a serious need for increased planning activity.

(1) contd

Impact of curriculum and organization innovations and the implications of current research and literature, e.g.

- Most economical and efficient size of schools and school systems
- Middle school concept
- Open classroom concept
- Early childhood education, K-3
- Computer technology and simulation
- Career education
- Compensatory education
- Extended school year
- Flexible scheduling and independent study
- Team teaching
- Non-graded, continuous progress, and individualized instruction
- Differentiated staffing
- Alternative schools
- Experience curriculum
- Cooperative programs (DE, ICT, etc.)

Increasing demand for educational accountability

Changes in society's attitudes and values

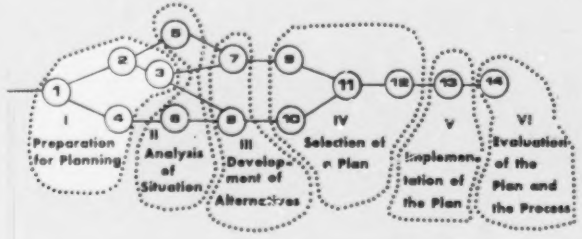
Changes in the composition and attitude of the teaching personnel

Unexpected availability of funds

Realization that facilities are inadequate

Loss of or damage to facility due to arson or natural causes

Whenever these situations occur, the school system that has a well defined and active planning process established will react naturally and effectively to meet these needs in stride. However, the system that hesitates for lack of an established procedure will not only lose time and money but may cause the students and teachers to learn and work in a less-than-desirable environment. In any event, the price of inadequate planning is most certainly paid by the students.



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Task (2) Staff organizes for in-house planning.

Staff begins internal organization for in-house planning

Appoint steering committee which may include:

- Citizens at large
- Central office staff
- Principals
- Instructional personnel
- Non-professional staff
- Students
- P.T.A. members
- Advisory committee members
- Members of local news media
- County commissioners
- School Board members
- Consultants (in an advisory capacity)

Subcommittees selected from/or by steering committee to evaluate the various facets of the educational community such as:

- Community data
- School system data
  - Present membership and projections
  - Personnel
  - Instructional program
  - Special services

There are several reasons why the steering committee should be composed of representatives from various segments of the community. The most obvious reason is that the school is a social institution and as such should strive to meet the needs of the community. An assessment of these needs and the determination of how best to meet them should naturally involve as many people as possible. A second reason is that, in order for citizens of the community to understand how proposed changes are to help in achieving the purposes and goals of the school program, the citizens must first be knowledgeable concerning the direction and the content of these purposes and goals. If they were established through wide community participation, the knowledge and resultant understanding might well be realized more easily than if the participation had not occurred.

(2) contd

- Organization and administration
- Miscellaneous

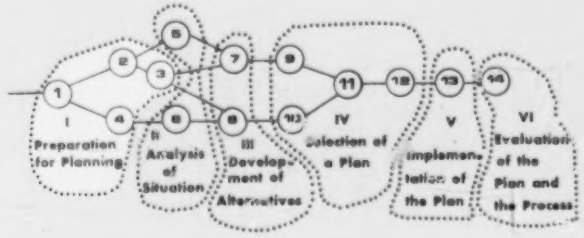
- Financial data
- Facility data
- School/community interaction

Tentative time table with due dates for various steps in the planning process is developed

A third reason is closely related to the second. Most planning involving capital outlay in the implementation phase will necessitate a new source of funds. The possibility of a successful campaign is much greater if a large number of people representing many interests groups have been involved in designing the program for which the new funds are intended.

The next reason for involving a number of people is primarily one of communication. In *The Social Psychology of Organizations*, Daniel Katz and Robert Kahn state that the "organizational space" separating those at the "top" of the organization from those at the "bottom" and from those they are intended to serve impedes communication greatly.[1] In other words, because organizations are growing and because communities are becoming more diverse, the steering committee extends the representative function of the board of education and provides a community sensitivity that is so vitally needed.

Whether a simple calendar of due dates or complete PERT network of tasks and time allotments is employed, there should be a set of clearly understood time limits for each activity. Open-ended assignments have a tendency to be delayed and extended *ad infinitum*.



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Task (3) Staff updates philosophy, goals, and objectives.

Subcommittee updates purposes and goals of the system

Establish a statement of the purposes of public education as suggested below:

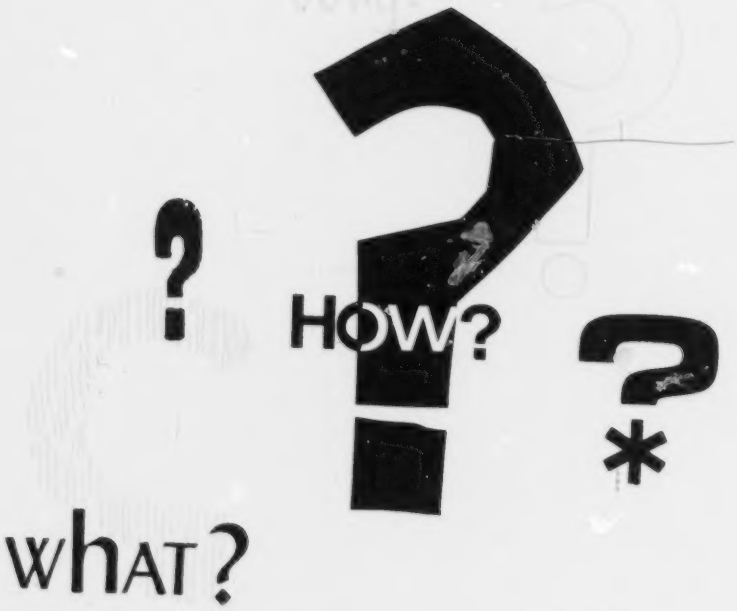
- Prepare a tentative written statement of the purposes by one or a combination of techniques
  - Group discussions are held with someone recording individual statements
  - Each member writes one or more purposes and the list is compiled
  - Small groups discuss purposes and compile lists
  - Community planning *charrette* is held
- Determine the validity of the purposes by considering:
  - The needs of the children
  - The characteristics of the community
  - The support for the statement found in current literature and research
  - Mandated program (laws and minimum standards)
- Develop a procedure for continuous evaluation and revision of the statement
  - Make adjustments indicated by changes in the community and the pupil population

The development of purposes and goals is perhaps the most important step in the planning process since every succeeding step is evaluated in terms of what has been established here. It is at this point that the following types of questions need to be answered:

"The term *'charrette'* is borrowed from the architectural profession, where it indicates an intensive effort to finish a project before a deadline. In school planning, it denotes a session of intensive group planning, with community representatives, school officials, teachers, students, and designers each contributing suggestions and all working to resolve conflicting desires. This process has been used in dozens of communities across the country."[2]

(3) contd

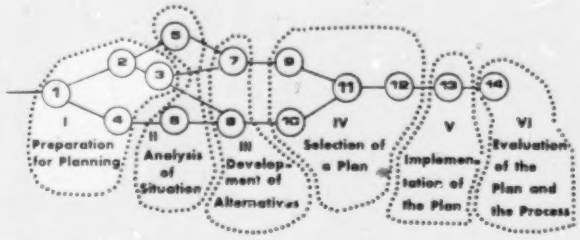
- Make adjustments indicated by the growing body of literature and research
- Make definite plans for periodic reviews of the purposes



- Why are we in this business called education?
- What are we trying to accomplish and why?
- Who is to benefit and how?
- Should education reflect society, restructure society, or ignore society?

Once these questions have been satisfactorily answered, it is necessary to prepare a rather definitive statement of the desirable goals for the various facets of the educational program. Based upon the stated purposes and upon a study of current research and literature, what do we believe to be the best instructional program we can offer our future citizens? How can the organization and personnel best be deployed to facilitate that program? How can the facilities best reflect that program and provide the flexibility it requires? What is the desirable financial structure and level of support required?

These are the types of questions that must be considered in developing the desirable goals for the educational program.



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3 contd

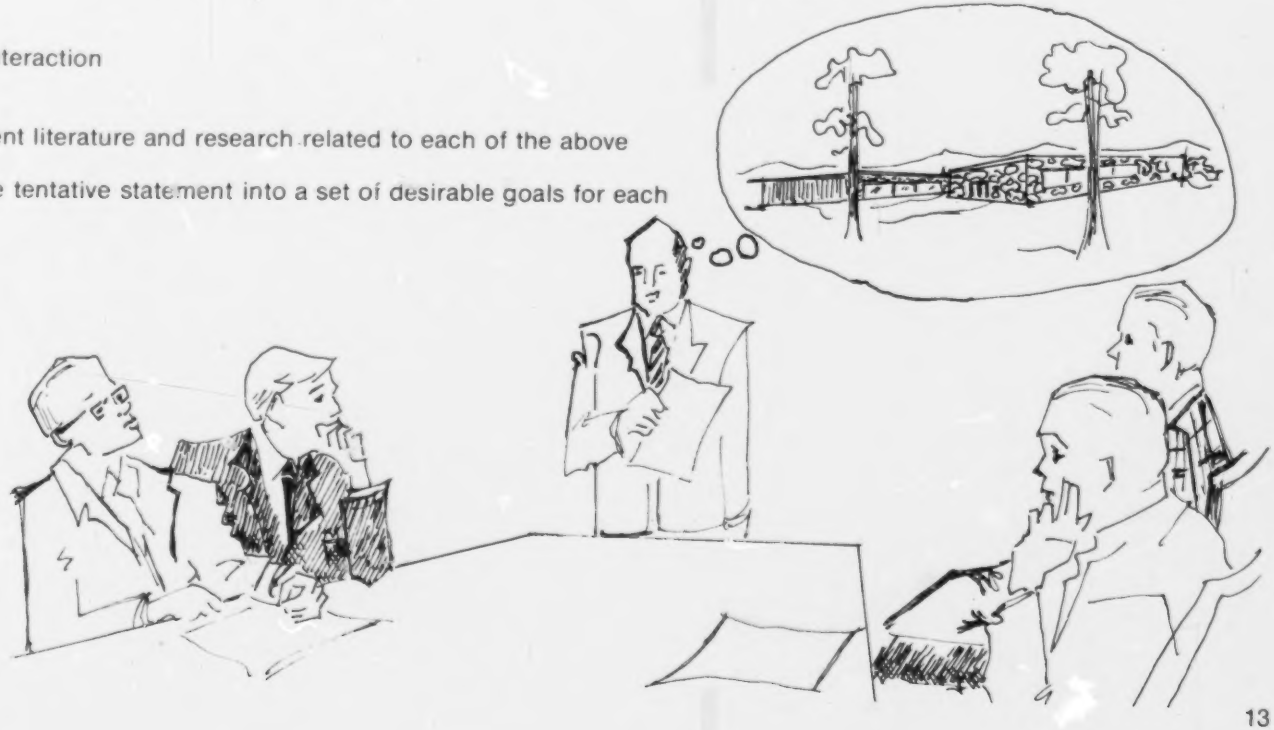
Based upon the agreed-upon purposes, develop a tentative statement of the goals of the system as they relate to what is desirable in:

- Instructional program
- Personnel
- Organization
- Finance
- Facilities
- Community/school interaction
- Special services

Locate and study current literature and research related to each of the above

Evaluate and refine the tentative statement into a set of desirable goals for each of the above

The subcommittees assigned to work with the various areas should be challenged to describe the ideal in each area. While these ideals may never be realized, the developmental process and the resultant direction are profitable.



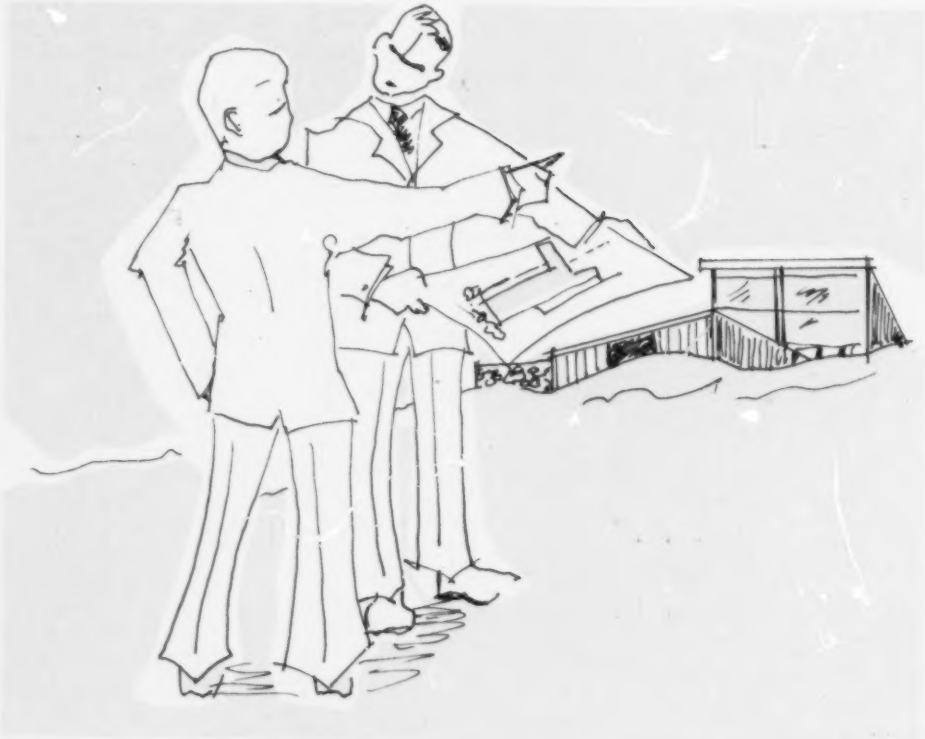
Task (4) Board contracts for out-of-house consultation.

Written request for out-of-house consultation forwarded

The Division of School Planning of the State Department of Public Instruction provides consulting services upon written request from local boards of education

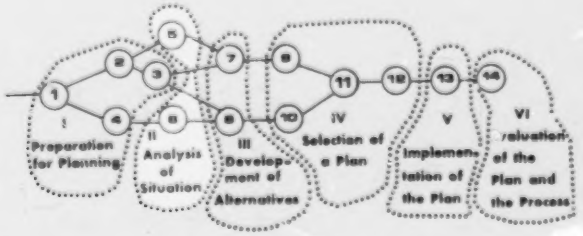
Other sources for out-of-house consultation may be contracted, i.e.

- Survey team composed of recognized educational specialists
- Private agencies that specialize in school surveys



The Division of School Planning is available without cost to serve local boards of education in a variety of ways. The Division compiles extensive research data; organizes and directs local, comprehensive surveys; conducts surveys limited to specific areas; assists in the development of educational specifications; coordinates the involvement of other State Department of Public Instruction divisions in surveys and in the development of educational specifications; and coordinates the involvement of other State agencies such as the Highway Commission, the Board of Health, the Insurance Department, and the Division of Natural and Economic Resources.

The Division provides architectural and engineering services which include review and approval of all plans for new construction (G.S. 115-130); consultations with local school administrators and their architects and engineers; building and site investigations and evaluations; interim and final inspections of school construction projects (G.S. 115-130); and assistance in planning in the area of environmental pollution control.



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PHASE II — ANALYSIS OF SITUATION

Task (5) Staff completes situation analysis.

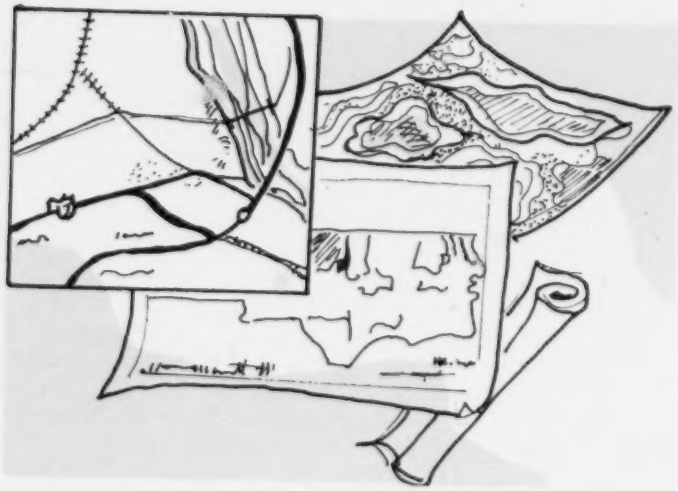
Task (6) Consultants complete situation analysis.

Local committees and/or consultants develop information base

The items listed in the left column that may be examined are only suggested components of the situation analysis and are by no means all-inclusive. Many of the items would require only an updating of the information base normally maintained by the superintendent. Other data, particularly comparing the local school system with other units, can best be obtained through the Division of School Planning and is available upon request whether or not Division consultants are actively involved in the situation analysis.

Phase I of the planning process is intended to answer the question, "What would we like to provide in our total program?" Phase II entertains the question, "What do we now have?" The ultimate objective of the situation analysis is to so thoroughly define

(5) (6) contd



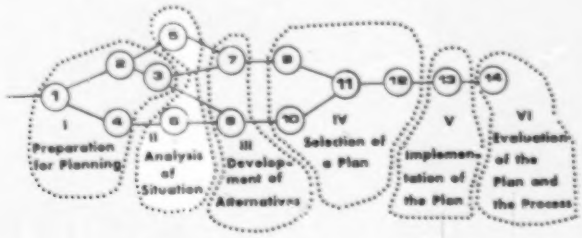
Community information is compiled

- Maps
  - Boundaries of unit
  - Location of schools and other school board properties
  - Adjacent units with location of schools
  - Topographic information
  - Water (oceans, lakes, streams, ponds)
  - Transportation (highways, railroads, airports, etc.)
  - Land use patterns
  - Zoning
  - Utilities (present and future expansion)
  - Proposed developments (highways, shopping centers, housing, etc.)

the parameters of the present program that alternative courses of action can be identified.

As in Phase I, the number of areas to be studied will be determined by the situation and the specific needs. It is suggested that an initial situation analysis should be as comprehensive as possible, whereas follow-up studies may be limited to specific problems. For example, there may be occasions when the immediate problem deals entirely with facilities; this may require an analysis and evaluation of only the areas of finance and facility.

A study of the community's history, traditions, culture, geography, and economy is important in determining its educational assets and liabilities. Public schools are not the only agencies that educate young people. The social environment, the economic resources, the business enterprises, the industries, and the cultural resources of a community also affect the 24-hour development of young citizens. Communications media—television, motion pictures, radio, and printed material—as well as travel all



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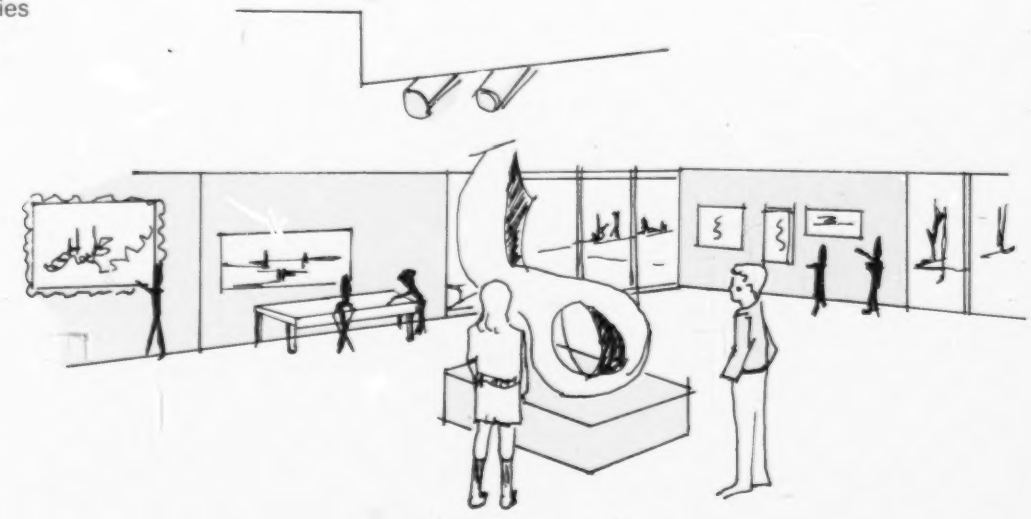
5 **6** contd

- Public and institution lands
- Educational (private and parochial) and cultural installations
- Student residences coded according to ages
- Higher education and preschool centers
- Location of correctional centers
- Health services centers

- Population data
  - Increase or decrease by minor civil subdivisions
  - County-wide population by age
  - County-wide population projections by age
  - Comparison of county births and deaths
  - Comparative growth of adjoining counties
  - Comparative growth of adjoining cities
- Cultural resources available
  - Libraries
  - Museums
  - Theatres (film and drama)
  - Resource persons
- Employment patterns
  - By selected industries
  - Annual average work force estimates
  - Commuting patterns

affect the child, perhaps as much as the school he attends. The public schools, in analyzing their community and in establishing their programs, cannot ignore these other influences in the lives of their children. Recognizing the context in which they exist and function, the public schools must utilize and coordinate their services with these other resources for the benefit of the students.



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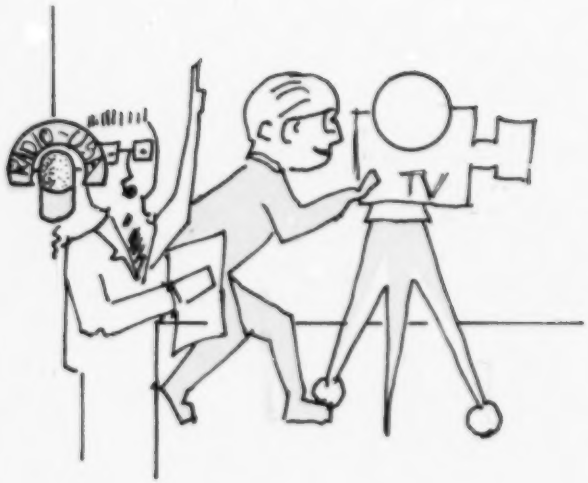
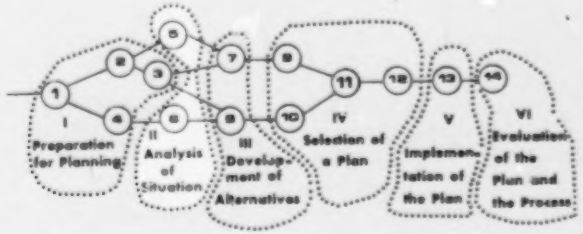
- Economic data
  - Per capita retail sales for county and surrounding counties
  - Per capita income for county and surrounding counties
  - Per capita and/or per pupil property valuation
  - Total travelers' expenditures in county
  - Housing characteristics

- Recreational facilities available
- Other educational institutions
- Communication media
- Private and industrial resource persons available
- Sociological data
  - Number of broken homes
  - Number of female-head-of-households
  - Percentage of population receiving welfare assistance
  - Crime rate
  - Socio-economic trends
  - Number of working mothers

- Health and social services



While it is difficult to establish a direct cause and effect relationship between the sociological data and the school program, the insight into and feeling for the community that results from an understanding of such data is invaluable. For example, if a large number of broken homes and female-head-of-households exist in the community, increased time, effort, and money could be justified to locate and to recruit additional male teachers for the elementary schools.



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5 6 contd

School system data are assembled

- Present membership
  - By grade
  - By school
  - By area
  - System-wide total
  - County-wide total if different
- Pupil population projections
  - By grades
  - By attendance area
  - By special program

- Drop-out data
- Follow-up of graduates and drop-outs
- Private school membership
- Number of commuting students
  - Into the system
  - Out of the system

- Personnel data
  - Certification level of professional staff
  - Experience of professional staff
  - Personnel turnover
  - Summary of all personnel data
  - Summary data for non-professional staff

A prediction of the future school population is an integral part of planning for the future. Information that will lend validity to projections should be collected and interpreted annually.

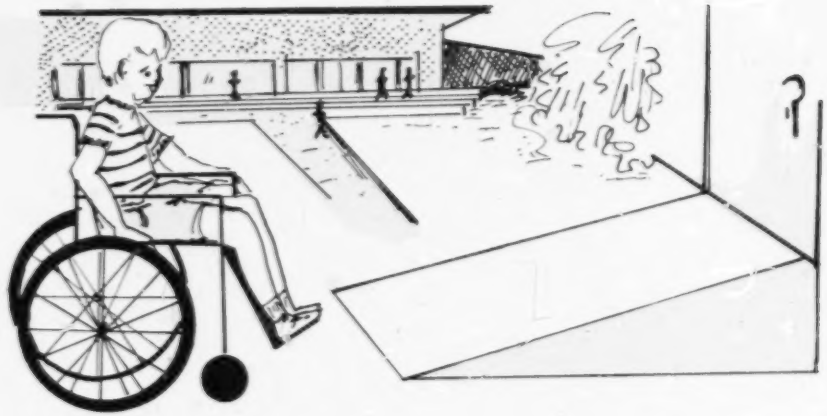
Pupil population projections are useful within certain limitations. The projections are normally based on an analysis of the pupil population during past years and are made on the assumption that no significant change will occur in the birth rate, holding power of the schools, or migration patterns. If properly developed, the projections are highly reliable for the first year but become less reliable with successive years. Consequently, the projections should be updated each year or evaluated in terms of actual pupil counts.

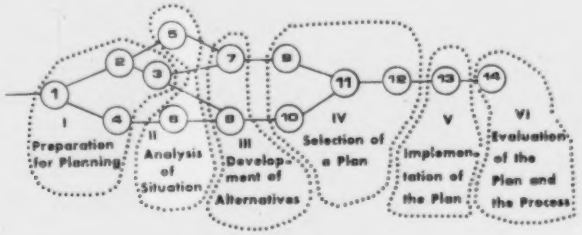
5 6 contd

- Instructional program
  - Course offerings
  - Teaching methods
  - Media services (library)
    - Books/child
    - Materials and equipment
    - Expenditures/child
    - Circulation and participation
  - Special programs
    - Homebound
    - Learning disabilities
    - Educable mentally retarded
    - Trainable mentally retarded
    - Gifted and talented
    - Physically handicapped
    - Remediation programs
    - Adult education
  - Testing and evaluation
  - Co-curricular activities
- Special services
  - School food
  - Health
  - Guidance and counseling
  - Clinical
  - Psychological
  - Attendance
  - Social

An analysis of the instructional program, including the depth and scope of the curriculum content, is imperative to insure that the educational program is, in fact, providing for the educational needs of the students.

A principle of education that is readily embraced by every educator is the necessity to provide for the individual. However, its implementation is much more difficult than its endorsement. A special effort should be made to determine how effectively, if at all, the needs of special or deviant students are being met.





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- Organization and administration
  - Vertical organization (graded, multigraded, nongraded, or a combination)
  - Horizontal organization (self-contained classrooms, departmentalization, Joplin plan, homogeneous or heterogeneous grouping, "open", etc.)
  - Administrative policies and practices
  - Coordination of central office
  - Channels of communication
  - Authoritarian, democratic, or laissez-faire in practice
  - Classroom teacher/pupil ratio
  - Professional staff/pupil ratio
  - State and regional accreditation status of individual schools
  - High school graduates five-year summary
    - Percentage going to four-year college
    - Percentage going to two-year college
    - Percentage going to technical or vocational school
    - Percentage accepting immediate employment
    - Percentage in military service
    - Percentage unaccounted for

- Transportation
  - Number and percentage of pupils transported
  - Number of buses
  - Mileage
  - Maximum time a pupil is on a bus per day

One can hardly overlook the effect that the organization and the administration of a system or individual school has in stifling or enhancing the realization of goals and objectives. To determine whether the organization and administration truly reflect the philosophy of the system, answers to the following suggested types of questions are valuable:

- How are students advanced through the program from year to year (vertical organization)?
- How are students organized in groups (horizontal organization)?
- Are administrative policies clearly understood by all who are affected by them?
- Are administrative practices consistent?
- Is the authority and responsibility of the central office staff well coordinated or do their functions overlap and conflict?

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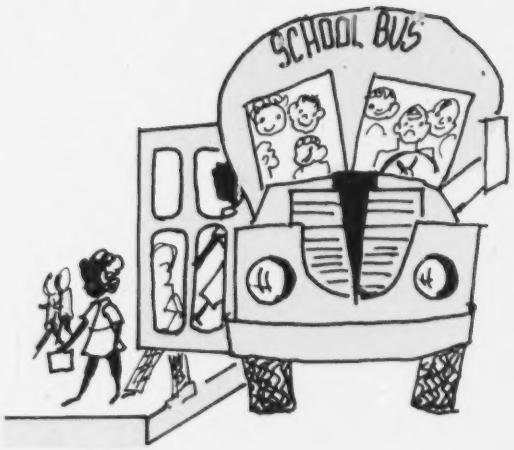


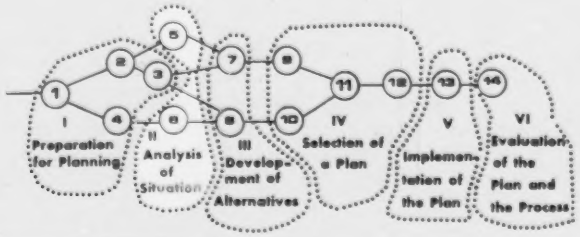
School finance data are accumulated

- Instructional personnel by major source of funds
- Current expense per pupil (comparative)
- Current expense disbursements
- Current expense expenditures and per pupil cost
- Total county-wide tax rates for specified purposes for the selected fiscal years
- Per pupil expenditures for instructional supplies, library books, and textbooks from local and federal sources
- Comparative effective county-wide property tax levy
- Total property taxes levied county-wide for the selected fiscal years
- Capital outlay
- A five-year comparison of the amount of local funds expended for current expense, capital outlay, and debt service levied for schools
- Comparative local salary supplements paid teachers
- Comparative appraised valuation per ADM
- Bonding capacity, bonded indebtedness, and amortization schedule

- Are the channels of communication open or closed?
- Does communication flow upward as well as downward?
- How open or closed is the decision-making process?
- Does the organization provide a desirable pupil/teacher ratio in all schools?

There are very few educational problems whose solutions do not involve financial decisions; educational planning and financial considerations are difficult to separate. Both the scope and quality of the educational program affect and in turn are influenced by the financial parameters of the school system. Therefore, situation analysis must include a thorough investigation of

- the extent of funds currently available
- how these funds are being used
- potential sources of additional funds
- the implications of judicial precedents and pending State and Federal legislation for the local financial structure.



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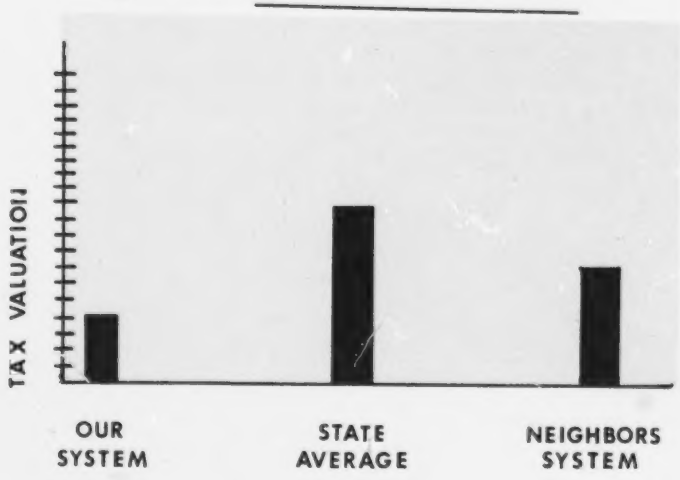
- Comparison of uses of tax funds with neighboring counties and with State averages
- Comparative uses of a one percent sales tax
- Non-property revenues
  - Sales tax
  - Revenue sharing
  - Endowments or gifts
  - Special use taxes (privilege)
  - Income tax
  - Student fees
  - Regional funds (Appalachian, Coastal, etc.)
  - Federal funds
  - Alcoholic Beverage Control funds
  - Fines and forfeitures
- Tax base data
  - Appraised valuation
  - Assessed valuation
  - Date of last revaluation
  - Tax levy
  - Effective tax levy
- Reserves
- Potential sources of funds for pay-as-you-go

While a comparison of local financial data with State averages is useful and to be encouraged, a comparison of local data with geographically adjacent systems or those with similar characteristics is more revealing in terms of the level of local support. Comparative fiscal data, although difficult for local agencies to secure on their own, may be obtained through the Division of School Planning upon written request from the local board of education.



5 6 contd

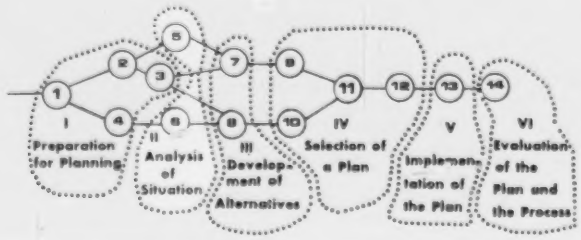
Facilities are evaluated

- Property accounting data are updated and checked for accuracy:
  - Plot plan of each school-owned property showing topography, driveways and parking, utilities, buildings, developed playgrounds, stadiums, wooded areas, north point, graphic scale
  - Acreage of each site
  - Plan of each building showing room arrangement and room sizes, construction characteristics, dates of construction, general condition, utilization
  - Availability of adjacent property
- Review most recent architectural and engineering reports
- Review and revise data from property accounting records
- Evaluate each school including
  - Number of teaching stations or classrooms
  - Short-range pupil capacity
  - Long-range pupil capacity
  - Educational adequacy in terms of national and state standards
  - Capacity and/or adequacy of service systems (heating, cooling, electrical, sewer, water, etc.)
  - Capacity and/or adequacy of special areas (lunchroom, gymnasium, auditorium, media center, etc.)
  - Location and adequacy of pupil, staff, public and service entrances
  - Traffic patterns to and around schools
  - Location relative to students
- Availability of *found space*

While there are no clear definitions that can be applied in every situation regarding the long or short-range utilization of a building or addition, the following factors should be taken into consideration:

- Age of building and/or additions
- General structural condition
- Sanitation code requirements
- Life safety code requirements
- Location of site
- Adequacy of site
- Educational adequacy
- Construction type
- Replacement cost
- Total cost of ownership

"*Found space* is the judicious use of society's unwanted architecture. It often carries an additional bonus for the user, since it can be leased on a 'pay-as-you-go' plan with funds from an operating budget instead of from capital expenditures. Found space can be acquired fast, too. More often than not, it is only a matter of months between finding an old building and moving into it. But the process of planning and constructing a new building can take years. Found space is relatively inexpensive; it recycles the urban environment; it shoots life and activity into old neighborhoods; and it is applicable to a variety of needs for a variety of clients."[3]



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5 6 contd

Local committees and/or consultants compare and analyze initial data

Determination is made relative to further data that is needed

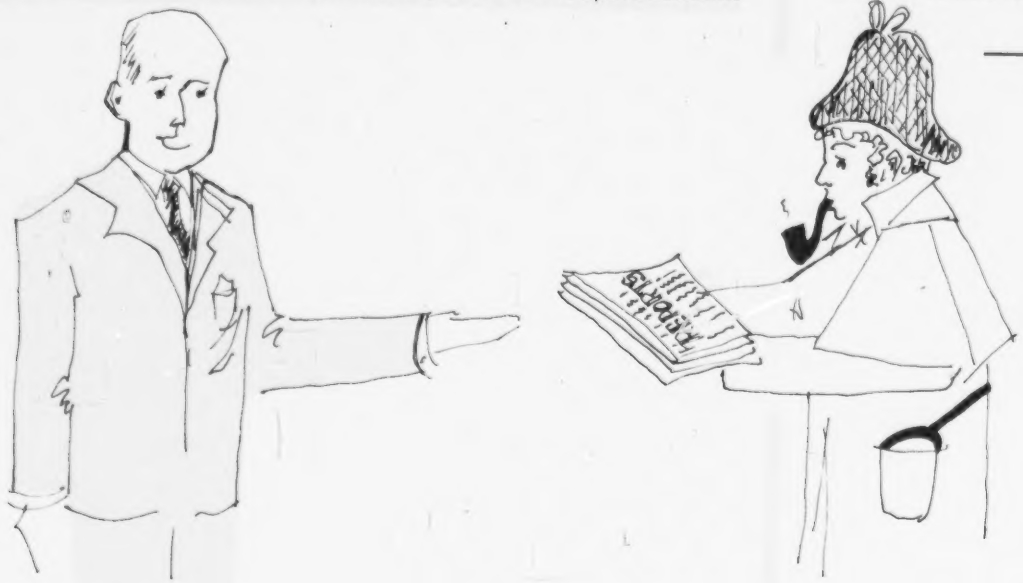
Tasks are cooperatively assigned for securing further data

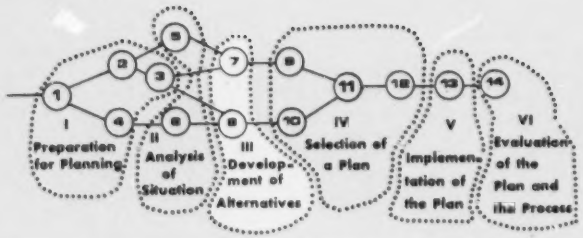
Local committees and/or consultants complete situation analysis

Local committees and/or consultants submit written reports to the Superintendent

After collecting, organizing, and displaying the data in the most appropriate manner (tables, figures, narrative reports, maps, etc.), the information must be analyzed to determine if further data is needed and available. The local committee and consultants cooperatively determine who is in the best position to secure the additional data and assignments are made and completed.

When all the data are in and expeditiously recorded, written reports are prepared and submitted to the Superintendent.





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PHASE III — DEVELOPMENT OF ALTERNATIVES

Task (7) Staff develops alternative plans

Task (8) Consultants develop alternative plans.

Staff and/or consultants review purposes

Staff and/or consultants review what was identified as desirable regarding

- Instructional program
- Personnel
- Organization
- Finance
- Facilities
- Community/school interaction
- Special services

Community participation continues to be a worthy objective in this phase of the process; but from a practical standpoint, the degree of responsibility delegated to community representatives must be limited. It is suggested that the major burden of developing alternatives be assumed by the professional staff with lay representatives serving in an advisory capacity and as a communications link with the greater community.

Because of the increasing complexity of communities and of school systems, the "organizational space"[4] separating superintendents and their immediate staff from the teachers is also increasing; this has a tendency to create both psychological and behavioral gulfs between teachers and superintendents. To expect central office staff intuitively to evaluate alternatives in terms of their effect upon teachers and students is futile in many cases. Therefore, because of this phenomenon of differential perception, it is al-

(7)(8) contd

Staff compares parameters of present situation with the "desirable" statements in light of agreed upon purposes

Staff manipulates the variables for each area to identify alternative ways to reach the long-range goals

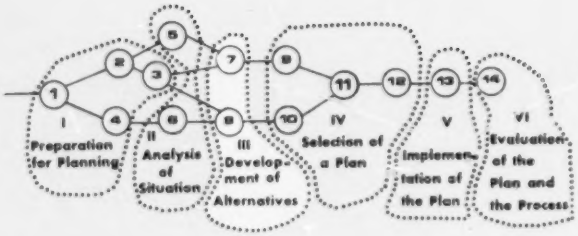
- Instructional program options:
  - Required courses / mini courses / independent study
  - Academic, college-oriented program / vocational, career-oriented program
  - Comprehensive high school / high school with tracks within the curriculum
  - Teachers and textbook dominated instruction / a child centered approach

- Organization options:
  - Junior high/middle school
  - Self-contained / "open"
  - Non-graded / graded
  - Homogeneous groups / heterogeneous groups
  - Chronological age grouping / multi-age grouping
  - 4-3-3-3 / 7-3-3 / 9-4 / 7-6 / 6-4-3 (including kindergarten)
  - Several small schools / one or two larger schools
  - Special schools, i. e. vocational, impaired, talented, etc.

most mandatory to involve teachers in the process of developing alternatives.

In the broad sense, planning is a process of considering the likely consequences of actions before they are taken. More specifically, planning is the selection of a course of action by systematically considering the alternatives. All too frequently this phase of the planning process is omitted or at best abbreviated. In the pressure of reaction planning, that which occurs in a crisis or as a result of poor prior planning, the first feasible solution is often adopted without considering other possible solutions. While this is a natural response, it should be avoided; the first, most obvious solution may or may not be the best solution.

Developing alternatives involves the purposeful and systematic manipulation of the human, technological, organizational, financial, and social variables that comprise the educational entity. It is an attempt to evaluate the effect of increasing one variable and decreasing another upon the clients of the system — the students.



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- Finance options:
  - Bonding / pay-as-you-go
  - Change assessment ratio / change tax rate
  - Property tax / local option sales tax
  - Consolidation of smaller schools
  - Merger, partially or totally with adjacent unit
  - Salary supplements across the board / staff differentiated salary schedule
  - Student fees or eliminate student fees

- Personnel options:
  - Differentiated staffing / traditional staff utilization procedures
  - Cooperation with adjacent unit for specialized personnel / continued utilization of generalists
  - Reassignment of teachers out of field
  - Elimination of substandard certified teachers

- Facility (grounds, buildings, and equipment) options:
  - Utilize with minor repair and continue same level of maintenance
  - Renovation and/or rehabilitation
  - Raze old and reconstruct on same site
  - Build on new site and utilize old facility for different function
  - Utilize "found space" — unoccupied warehouses, church buildings, store fronts, etc.

After reviewing the purposes and desirable goals established for the various areas of the system, a comparison of the present program with the desirable program is made. While considering the present and anticipated resources available to the system, the question, "What will happen if . . . ?," is answered for each variable and combination of variables that are compatible with the purposes and objectives of the system. The objective at this point in the process is to identify and describe as many feasible alternatives for reaching the long-range goals as possible.

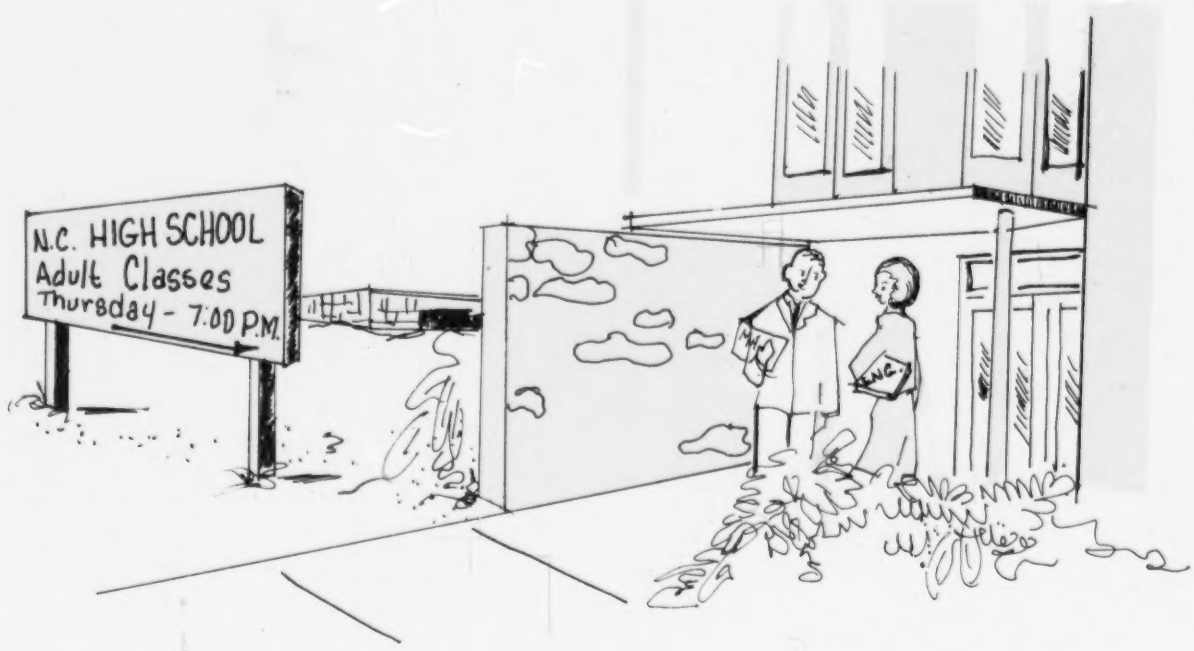
School systems with access to computers and programmers should explore the possibility of utilizing a computer planning model or cybernetic technique; these are valuable in simulating the effects of manipulating educational variables in terms of cost and quality. Computer planning models enable the local planners to predict the immediate and long-range resource demands of implementing specific alternatives.

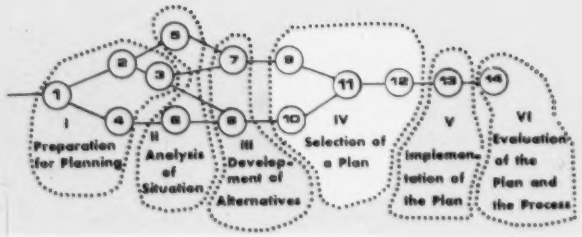
(7) (8) contd

- Community/school cooperation and coordination options:
  - Shared instructional services — library (summer and adult), recreation, post-secondary education, secondary equivalency, resource persons, local industry resources, communications media, cultural resources, etc.
  - Shared special services — transportation, maintenance and operations, cafeteria, health

- School-managed special service options:
  - Single bus system for all / dual bus system for all / dual for some and single for others
  - System-operated cafeterias / outside catering / vending
  - Local school-managed cafeterias / centrally-managed cafeterias
  - System-employed nurses / County Health Department personnel
  - System-employed psychologist / County Health Department personnel

The alternatives listed in the outline section are not intended to be all-inclusive; they are included only to suggest possible options.





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PHASE IV — SELECTION OF A PLAN

Task (9) Staff makes recommendations.

Task (10) Consultants make recommendations.

Local committees and/or consultants make recommendations to superintendent

- One recommended and one or more alternate, long-range plans (5-15 years) are submitted
- Each long-range plan is broken down into phases or short-range (1-5 years) plans
- A long-range plan may be presented with one or more strategies (series of phases) each having the same net effect
- Recommendations are made in writing
- A verbal report may be made to the Board of Education
- At the request of the board, consultants make other verbal and media presentation to other audiences

After carefully evaluating the options available for each variable, the local committee and/or consultants select several alternative plans which best implement the stated purposes and objectives of the school system. The committee may submit the acceptable plans to the superintendent with each carrying equal weight; they may, however, select one plan which seems to be most compatible with the stated purposes and goals while presenting the other plans in order of their priority. It is recommended that the plans should be submitted to the superintendent in a written report which explains the rationale for the recommendations and defines the strategies or phases included in each plan. The several proposals may vary in detail; on the other hand, the long-range objectives of the several plans may be identical with the plans differing only in the strategies required.

Surveys and recommendations provided by the Division of

9 10 contd

School Planning are submitted to the superintendent in bound form with a verbal report presented upon request. At the request of the board of education, consultants of the Division of School Planning are available at any time following the report to interpret their recommendations.

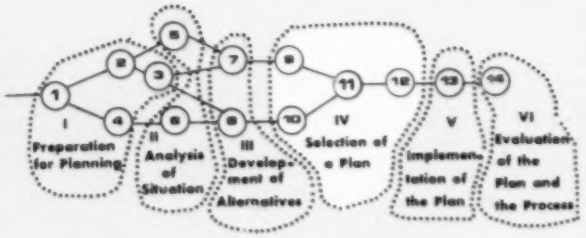
Task 11 Administration recommends to Board.

Superintendent selects a plan and makes recommendations to the Board

- Superintendent reviews the purposes established cooperatively by his staff and representatives of the community
- Superintendent reviews the statements of desirable characteristics identified in Phase I for the areas that follow:
  - Instructional program
  - Personnel
  - Organization
  - Finance
  - Facilities
  - Community/school interaction
  - Special services
- Superintendent reviews situation analysis for areas of strength and weakness

While it is important to involve the community and the staff in the establishment of the purposes and goals, in the analysis of the situation and in the development of alternatives, the final responsibility for the recommendation resides in the office of the superintendent; however, the board of education is responsible for the final decision.

Regardless of the involvement of many persons in the development of alternatives, decisions must be made by individuals and are subject to human obstacles which often decrease the effectiveness of the decision-making process. The first obstacle involves the commitment to make a decision. All too often the human tendency to postpone decisions is strong. By failing to decide, however, delayed problems will intensify and more than likely multiply over a period of time creating a larger problem. While it is true that individual problems sometimes disappear, the decision not to decide may be very



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11 contd

- Superintendent carefully studies the several alternatives that are available to the system and weighs the pros and cons of each against the purposes of the system and against the human, financial, technological, political, and social inputs that influence the decision-making process

hazardous both for the organization and for the individual.

Another tendency that must be avoided by the superintendent is the erroneous reasoning that, because of the involvement of staff members and community representatives, the recommended alternative must be accepted unquestioningly as the superior plan. Also, the superintendent may feel pressured to make a decision quickly before thoroughly analyzing the likely consequences of each alternative. As the individual who is legally and professionally responsible for the recommendation made to the Board, the superintendent must weigh and analyze the probable cost and/or benefits of the alternative courses of action as thoroughly as did the committee who recommended the alternative. While pressured by outside interest groups and by his colleagues to make a decision and while influenced by the recommended solutions, the superintendent cannot abdicate his responsibility for thoroughly analyzing and evaluating the alternatives for himself.

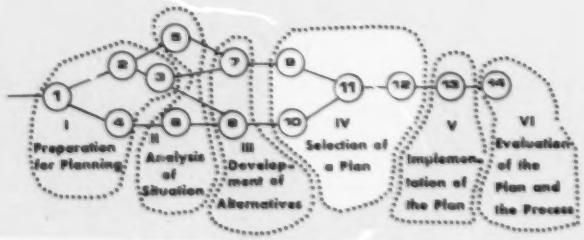
All complex systems that interact with their environment for survival develop subsystems for the operation of their function. In order to survive, these systems must maintain a state of equilibrium;

(11) contd

- After thorough consideration of the alternatives, the Superintendent makes recommendations to the Board

any internal or external force which disrupts the system is countered by another force from within which tends to bring it back to its original state. This is especially true in school organizations where subsystems in the structure develop and attempt to maintain a certain degree of security. For this reason, information that is generated purely from the inside should be checked periodically by objective, outside experts to eliminate the possibility that vested interests from within the organization are providing the superintendent with information that would tend to protect their position of security. Therefore, several sources of information should be utilized by the superintendent to insure that he does not become unduly influenced by vested interest groups.

A third tendency that superintendents must avoid is to make decisions based primarily upon the practical problems of implementing those decisions. The first questions generally asked of an alternative are, "Will it work?" and "Can it be put into acceptable operation easily with a minimum of confusion?". The real merit of an alternative as a viable solution may never be realized simply because it is found to be inconvenient for the administrator and therefore ruled impractical. If the merits of an alternative are considered objectively and found to be outstanding and if the alternative was established through a process which elicited community support, the means for implementing the alternative can usually be found.



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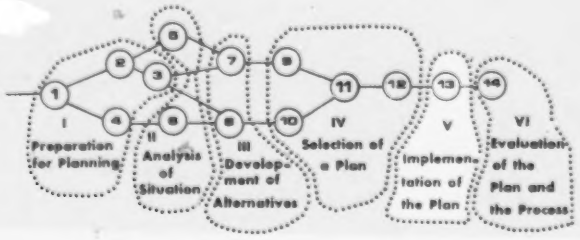
(11) contd

After thoroughly considering each of the alternatives in terms of the purposes and goals of the system and in terms of the human, financial, technological, political, and social resources that are available, the superintendent makes his recommendation to the Board of Education.

Task (12) Board adopts a plan.

The Board of Education, after considering the data and the rationale behind the recommendation, adopts a plan



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PHASE V — IMPLEMENTATION OF A PLAN

Task 13 The plan is implemented.

Implementation of the adopted plan is begun

Implementation principles are:

Staff and community should be involved whenever possible.

Recognition should be given to staff and/or community representatives for exceptional service.

Consultants should be utilized whenever needed.

A short-range calendar of due dates or a PERT network for the completion of short-range tasks should be developed.

A continuous evaluation procedure for refining the on-going implementation process should be designed and utilized.

Open lines of communication with the staff and community should be maintained.

Implementation of the adopted plan in all areas (organization, program, finance, personnel, facilities, community/school interaction, and special services) is treated in this publication in general terms. The method of implementing the chosen options for each of these variables is relative to many factors such as:

- The options chosen
- The time span required
- The personality and style of the administrator
- The conditions upon which the plan may be dependent.

However, the principles listed in the outline are suggested as applicable regardless of the plan, the process, or the individuals involved.

(13) contd

Local, State, and National approval should be secured at appropriate time.

Comply with Local, State, and Federal regulations and standards.

For more details, consult the Division of School Planning publication *North Carolina Laws Pertaining to Public School Construction*, recent editions of *Public School Laws of North Carolina* and *General Statutes of North Carolina*.

Implementation of instructional program component

Implementation of organization component

Implementation of finance component

Implementation of personnel component

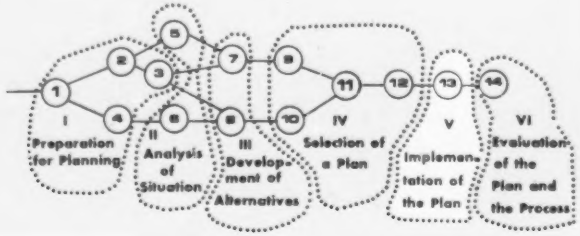
Implementation of community/school interaction component

Implementation of special services component

Implementation of the total plan may include several components such as organization, reorganization, finance, facilities, program, personnel, and others. Since implementation of the plan may be done in stages with one or more components being implemented simultaneously, this publication does not attempt to identify procedures for the implementation of each component but rather attempts to utilize for illustrative purposes the details suggested for the facilities phase of the plan. Plans for the implementation of other components of the total plan would logically need to be tailored to the local situation.

Implementation of facilities component

Although implementation of the facility component depends upon many relative factors also, there is a fairly well established procedure that is applicable regardless of



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13 contd

". . . and we can save 700 lira by not taking soil tests."

Select consultants

- Legal consultants and their basic services
  - To advise on school law
  - To advise on contracts with consultants, builders, equipment-furniture suppliers, etc.

whether the project is a renovation, a rehabilitation, or a completely new structure. While smaller projects may omit some of the process outlined, the employment of competent design professionals is recommended; those steps mandated by law, however, must be followed explicitly. Superintendents should avoid using maintenance personnel for major construction projects or taking other short cuts in an effort to save money and time; short cuts often prove to be costly in the long run.

Legal counsel should be available to the school officials on a continuous retainer basis, but the services of attorneys are imperative during the planning and construction of facilities.

13 contd

- Educational consultants and their basic services
  - To give counsel and recommendations regarding education matters such as: organization, transportation, finance, building programs, educational specifications, equipment, etc.
  - To assist in interpreting facility needs
  - To evaluate processes and results

- Design consultants (architect, engineer, landscape architect, interior planner) and their basic services
  - To assist in programming the building projects
  - To assist in site selection
  - To prepare schematic plans and construction documents
  - To assist in obtaining bids and executing contract documents
  - To assist in inspection of project and in administering construction
  - To assist in coordinating functions and services of other agencies (Federal, State, utilities, transportation, etc.)
  - To assist in selection of furnishings and equipment
  - To provide additional services, at additional cost, such as:

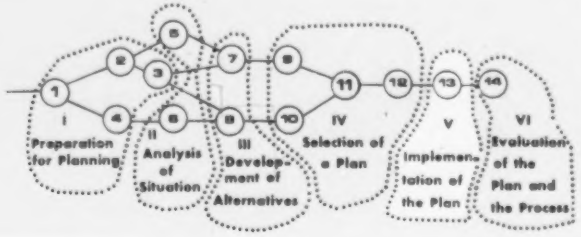
    Special analysis and studies of the owner's needs, beyond those called for in the schematic design phase of the basic services

    Making measured drawings of existing buildings

    Revising previously approved drawings to make changes not initiated by architect

The services of educational consultants may have been obtained early in the planning process; if not, they may be contracted to assist in more limited activities at various stages of the process.

While design professionals may be retained on a continuing consulting basis, they should be utilized to a greater extent during construction or remodeling of facilities. In any event, the agreement between owners and design professionals should be in writing and clearly understood. This agreement between the administrative unit and consultants describes the relationships and mutual responsibilities among the parties involved.



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Furnishing additional services resulting from events over which the architect has no control yet involve for him significant additional time and cost

Providing specialized interior design and furnishing services

- Factors to be considered in selecting consultants are:
  - Competence to provide complete services required
  - Capacity — the capability to provide all required services within a reasonable agreed-upon time schedule
  - Sufficient experience
  - Location — with present day transportation/communication possibilities, consultants and planners need not be "home-town folks"

Selecting consultants and planners should not be unduly influenced by political factors; competence and thoroughness, imagination and resourcefulness are more important.

Select or enlarge sites as needed

For detailed information on the process of selecting a site, consult the Division of School Planning publications *Planning for New School Sites* and *Public Schools and Highways*.

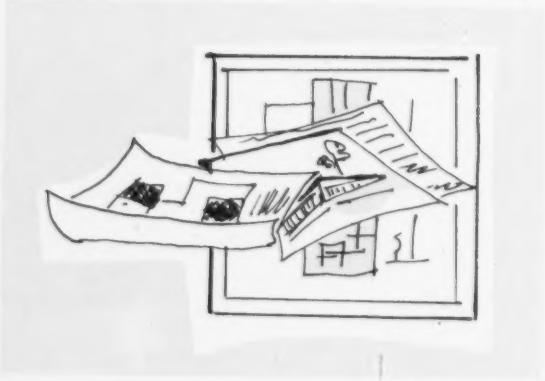
Develop educational specifications and user requirements

Educational specifications may be defined as a means of communication between the educator and the design professions. For detailed information on the process

(13) contd

of developing educational specifications consult the Division of School Planning publication *Educational Specifications — School Planning Guide Series 3.*

Prepare architectural-engineering program

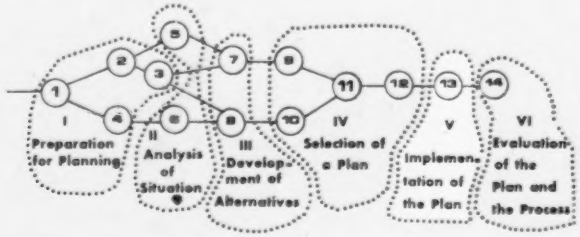


The architectural program reflects the architect's initial comprehension of the design problem given to him by the client. This is not a preliminary sketch for a building project, but it may include sketches and graphics as well as verbal statements which communicate the architect's response to the owner's statement of the planning problem.

Prepare, review, and approve schematic design documents

- Architect and engineer develop preliminary drawings
- Preliminary drawings are reviewed and suggestions are made by:
  - Administrative unit
  - Division of School Planning
  - State Insurance Department
  - State Board of Health (when necessary)
  - USOE if Federal funds are involved
- Adjustments are made to the preliminary drawings pursuant to the suggestions by the above agencies
- After a process of reviews and refinements, preliminary drawings are approved by the above agencies
- The design and/or selection of furniture and equipment is begun

For additional information consult the Division of School Planning publication *Procedures for Review and Approval of School Building Plans and for Inspection of Building Projects.*



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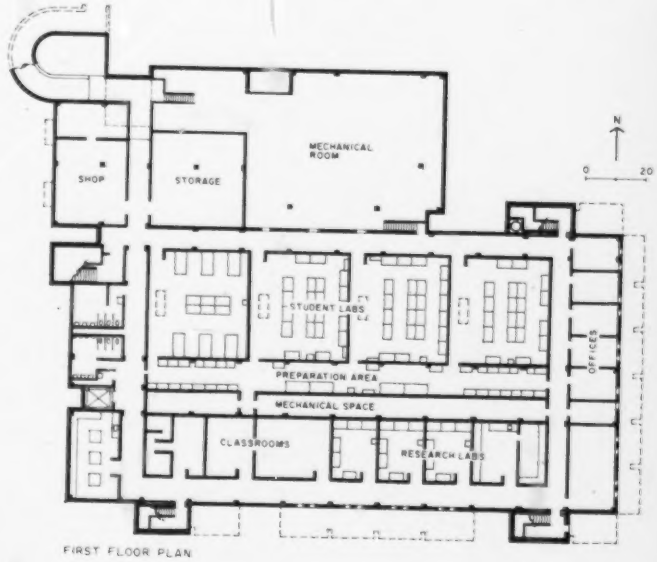
Prepare, review, and approve design development documents

- Architect and engineer prepare design development drawings and outline specifications which indicate all basic decisions regarding:
  - Materials
  - Mechanical-electrical system
  - Structural system
  - Basic equipment and services
  - Plan lay-out
- Design development documents are reviewed and suggestions are made by:
  - Administrative unit
  - Division of School Planning
  - State Insurance Department
  - State Board of Health
  - USOE if Federal funds are involved

- Adjustments are made to the design development documents pursuant to the suggestions by the above agencies
- After a process of reviews and refinements, design development documents are approved by the above agencies

Prepare, review, and approve construction documents which include working drawings, specifications, and other contract forms



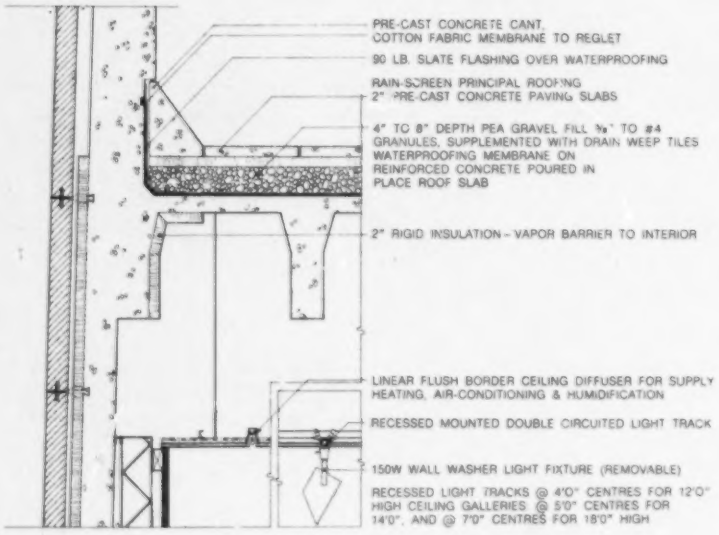
FIRST FLOOR PLAN

The school officials are responsible for acquiring approval of plans as required by laws and regulations. This duty may be assigned to design professionals.

13 contd

- Architect begins to prepare working drawings and specifications
- The design and selection of furniture and equipment progresses
- Working drawings are reviewed and approved by:
  - Board of Education
  - Division of School Planning
  - State Insurance Department
  - State Board of Health, which delivers a set of the drawings to their local or district representative

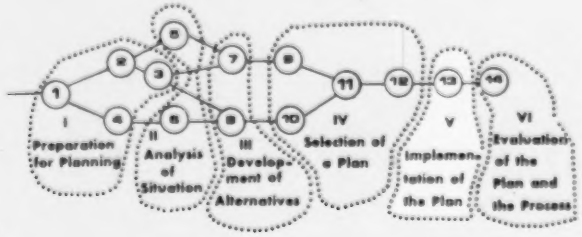
- State Department of Insurance and State Board of Health comment by letter to the Division of School Planning
- Acting for State Superintendent of Public Instruction, the Division of School Planning forwards certificate of approval to administrative unit and architect


PRE-CAST CONCRETE CANT,
COTTON FABRIC MEMBRANE TO REGLET
90 LB. SLATE FLASHING OVER WATERPROOFING
RAIN-SCREEN PRINCIPAL ROOFING
2" PRE-CAST CONCRETE PAVING SLABS
4" TO 8" DEPTH PEA GRAVEL FILL ⅜" TO #4 GRANULES, SUPPLEMENTED WITH DRAIN WEEP TILES
WATERPROOFING MEMBRANE ON REINFORCED CONCRETE POURED IN PLACE ROOF SLAB
2" RIGID INSULATION - VAPOR BARRIER TO INTERIOR
LINEAR FLUSH BORDER CEILING DIFFUSER FOR SUPPLY HEATING, AIR-CONDITIONING & HUMIDIFICATION
RECESSED MOUNTED DOUBLE CIRCUITED LIGHT TRACK
150W WALL WASHER LIGHT FIXTURE (REMOVABLE)
RECESSED LIGHT TRACKS @ 4'0" CENTRES FOR 12'0" HIGH CEILING GALLERIES @ 5'0" CENTRES FOR 14'0", AND @ 7'0" CENTRES FOR 18'0" HIGH

See the Division of School Planning publication *Procedures for Review and Approval of School Building Plans and for Inspection of Building Projects* for State laws, regulations, and procedures for obtaining necessary approval from State agencies.

For assistance in developing plans and technical specifications, the superintendent and his architect are invited to consult the following Division of School Planning publications:

- *Roofing-Planning, Specifications, Construction, Problems, — Technical Series 1*
- *Specifications for Structural Concrete for Buildings — Technical Series 2*
- *Considerations for Fire Alarm Systems, Sprinkler Systems, and Vandalism Control Systems in Public Schools — Technical Series 3*
- *Moisture Protection — Technical Series 4*
- *Pre-Fabricated, Pre-Engineered Rigid Frame Buildings — Technical Series 5*



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13 contd

Administer and complete bidding and contractural procedures

- Administrative unit and architect advertise for bids and set up conferences for prospective bidders
- Construction documents are released to bidders
- On the deadline date, administrative unit accepts bids
- Administrative unit, architect, and engineer evaluate bids
- Administrative unit selects successful bidders
- When Federal and/or State funds are involved, administrative unit makes an application to the State Board of Education through the Division of School Planning
- Administrative unit, with advice from legal and design consultants, prepares and executes contract documents

- *Facilities for Early Childhood Education — School Planning Guide Series 5*
- *Tar Heel School Food Service Facility Guide*
- *Planning for Shops and Laboratories*

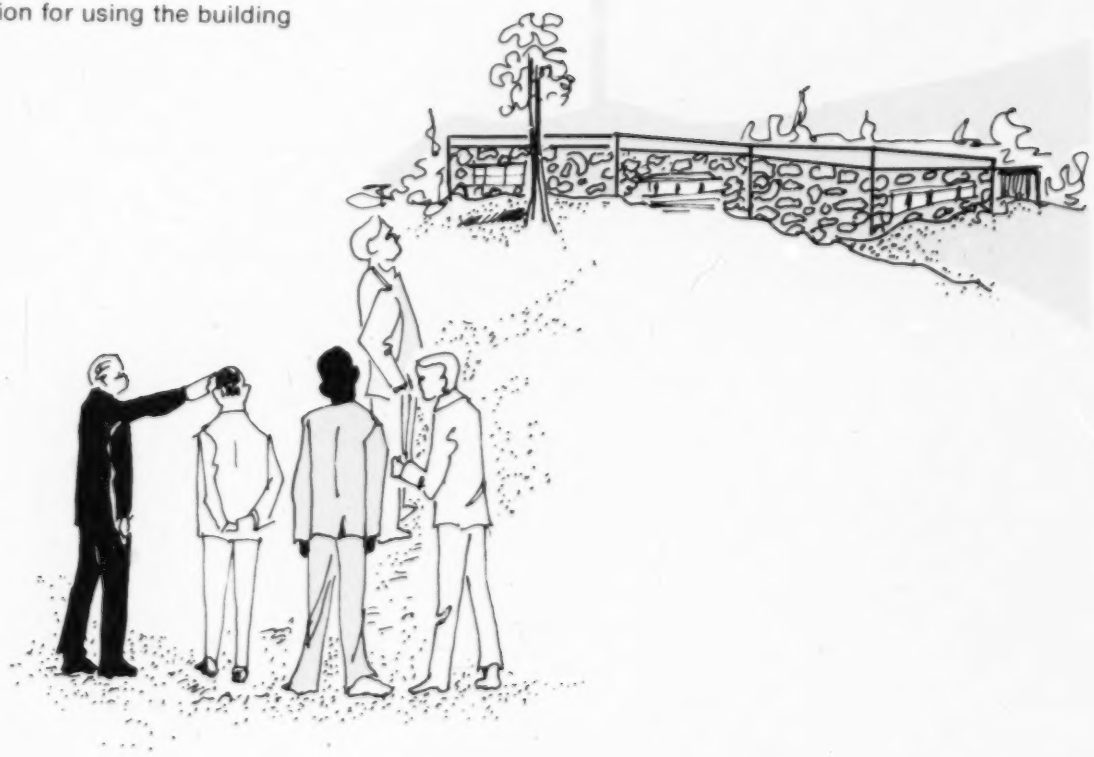
North Carolina statutes prescribe procedures for obtaining and accepting bids, for executing contracts, for final inspections, and for acceptance of completed projects.

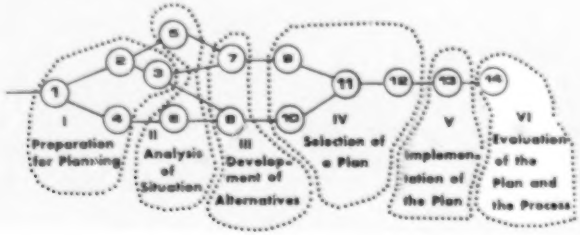
For more detailed information on the formal procedure for State-funded projects, consult the Division of School Planning publication *Public School Facilities Fund of 1963 — Step by Step Procedure.*

13 contd

Administer and complete construction process

- Architect, engineer, and possibly administrative unit observe and inspect construction process to check compliance
- Administrative unit makes periodic payments to contractors and consultants according to the written contracts
- Furniture and equipment are completed or purchased
- Upon completion of the contracts, administrative unit, architect, engineer, and Division of School Planning representatives make inspections
- Consultants provide administrative unit with operating instructions for the utilization of the facility
- Architectural and engineering consultants of the Division of School Planning conduct a final inspection of the new construction before all State funds are released
- Administrative unit accepts building and makes final payment to contractors and to consultants
- Administrative unit completes preparation for using the building





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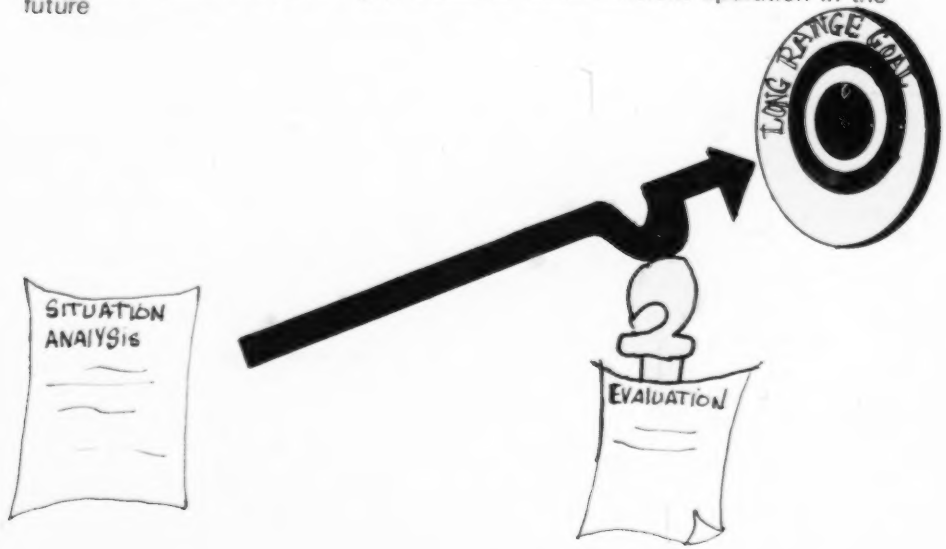
PHASE VI — EVALUATION OF THE PLAN AND THE PROCESS

Task (14) The plan and the planning process are evaluated

Objectives of evaluation:

- To assess the effectiveness of the planning process and the plan in achieving the stated goals (short- or long-range) of the school system to date
- To generate information for making adjustments determined to be desirable
- To further refine the planning process for more efficient operation in the future



Evaluation is a part of *every* phase of the planning process, not just a culminating activity that symbolizes termination. Actually the process was begun with an evaluation (situation analysis); it is realistic to assume that Phase VI of one process may be the beginning of Phase I of another.

Throughout the planning procedure information is gathered to assess progress toward the goals of the system, to determine the effectiveness of the procedure, and to refine the procedure and/or the goals. This cannot be delayed until the end since each phase is based upon the evaluation of the preceding one and since information may be collected during the process that may not be available later.

14 contd

Principles of evaluation

- Evaluation must be practiced continuously throughout the process, not reserved as a culminating activity.
- Evaluation is a dynamic activity.
- Evaluation is cooperative, involving many levels of the school system.
- Evaluation is most effective when there is a definite, well-defined channel for feedback to the appropriate operating level.
- Evaluation should focus upon students and upon the teaching/learning situation.
- Evaluation may be critical but should always be constructive.

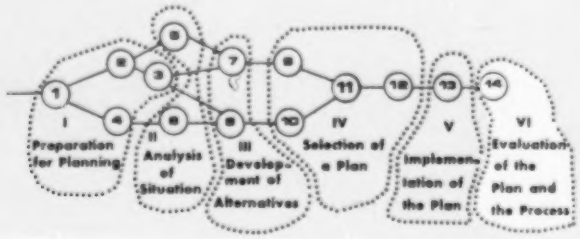
These evaluative principles are applicable at any phase of the planning process; they are appropriate for assessing progress in long- or short-range plans regardless of whether one school or the whole system is involved.

Evaluation should be a dynamic or active part of the process from the first phase through the last. It is suggested that the initial time and effort expended in developing a well-defined evaluation system are well worth the investment in terms of the efficiency and effectiveness of the total planning process.

Criteria for evaluation

- Purposes of the school system
- Goals (short- and long-range) of the school system
- Educational specifications (if there was a facility construction component)
- Effect upon and reaction of the persons or groups affected
  - Students
  - Teachers
  - Parents

Progress in the planning process should be evaluated in terms of several criteria; these should be cooperatively developed in the beginning and should be flexible enough to allow for additions and deletions as the process continues. Therefore, criteria listed in the outline are suggestions and should not be considered all-inclusive. The first five criteria are obvious, need no explanation, and are relatively easy to evaluate. The last two, the effect of the plan upon the social interaction and upon the informal structure of the system,



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- Effect upon the formal structure of the system
- Effect upon the social interaction of the system
- Effect upon the informal structure of the system

are less obvious and much more difficult to ascertain. This is true because both are elusive and intangible factors that become apparent only if they are sought out. This is not intended to minimize their importance. On the contrary, both factors and others like them may play a very important role in determining the success of the plan of improvement. In reality, these factors are actually side-effects of the planning process and its resultant changes. They have a direct bearing, however, upon the morale of the students, the teachers, and the community and therefore directly affect the acceptance of the improvements by these groups. The point is that evaluation should be concerned not only with the obvious criteria but sensitive to intangible side-effects that are so important to the success of the plan.

14 contd

Techniques for gathering evaluative data

- Objective data may be obtained by:
  - Testing (teacher-made and standardized)
  - Opinion polls
  - Attitude scales or inventories
  - Outside evaluation team of professionals

- Subjective data may be obtained by:
  - Purposeful and systematic observation
  - Self-analysis by the individuals involved
  - Group discussions
  - Interviews
  - Public reaction (telephone conversations, news media, letters)
  - Written evaluation of facility projects by principals and senior custodians during first year of utilization

Since evaluation is complex, it should employ a variety of methods, techniques, and instruments for supplying the system with the volume of objective and subjective data that is necessary for analyzing both the progress and the process. While objective data are more easily generated in large volume, the subjective information, like the artist's thumb, is necessary to put everything in its proper perspective.

In summary, the evaluation phase of the planning process, while appearing last, should never be considered the end of the process; it is a time for reflection and for course-correction for the beginning of the subsequent process. Planning for education is never complete. It is only one segment of a never-ending spiral that will continue as long as there are children and as long as there are adults who feel an obligation to help them develop as successfully as possible.

APPENDICES

Appendix A FOOTNOTES

[1]Daniel Katz and Robert Kahn, *The Social Psychology of Organizations* (New York: John Wiley and Sons, Inc. 1966), pp. 63-64.

[2]Educational Facilities Laboratories, *Places and Things for Experimental Schools.* A joint report of Educational Facilities Laboratories, Inc. and Experimental Schools project of U. S. Office of Education (New York: E.F.L., 1972), p. 111.

[3]Ibid., p. 15.

[4]Katz and Kahn, op. cit., p. 63.

Appendix B PUBLICATIONS OF THE DIVISION OF SCHOOL PLANNING

School Planning Guide Series
- Educational Planning — July, 1964
- A Digest of Educational Planning — June, 1963
- Educational Specifications — May, 1968
- Minimum Check List for Mechanical and Electrical Plans and Specifications — August, 1969
- Facilities for Early Childhood Education — March, 1970

Public Schools and Highways — June, 1971

North Carolina Laws Relating to Public School Construction — 1966

Planning for Built-Up Roofing (Preliminary Draft)

Information Concerning Renovations — January, 1971

Procedures for Review and Approval of School Building Plans and for Inspection of Building Projects by the Division of School Planning — January, 1971

North Carolina Schools of Interest — June, 1971

Planning for New School Sites — November, 1971

Facilities for the Arts (available 1973)

Planning for Shops and Laboratories

Technical Series

1—Roofing-Planning, Specifications, Construction, Problems — September, 1969
2—Specifications for Structural Concrete for Buildings — October, 1970
3—Considerations for Fire Alarm Systems, Sprinkler Systems, and Vandalism Control Systems in Public Schools — March, 1971
4—Moisture Protection—August, 1971
5—Pre-Fabricated, Pre-Engineered Rigid Frame Buildings — April, 1972
6—Pre-Coated Roofing Felts — June, 1972